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## ROUTE OF CABEZA DE VACA IN TEXAS.

O. W. WILLIAMS.

There is no story of the Sixteenth century more romantic than that told in the "Naufragios" of Cabeza de Vaca. The hero starts out, armed in all the panoply of Sixteenth century warfare, to the discovery of an impossible El Dorado. He becomes a victim to cruel enemies, both of the earth and of the heavens; he suffers the horrors of shipwreck, cold, and starvation; he drags himself along painfully on a desert coast, torn by thorns, blistered by heat, ready to drop from starvation and exhaustion, and too plainly foredoomed to fall to the cruel caprices of savage masters. From this tragic end he is saved by the sign of the cross, becomes a great "medicine man" among the savages, and finally gets back to his jealous countrymen, a naked king at the head of barbarian worshippers.

But, as customary in Nineteenth century romances as well as in those of the Sixteenth century, it has not been possible to locate this romance in its itinerary to any great degree of certainty. From the time when the survivors of the Narvaez expedition left a bay, supposed to be Tampa Bay, in their boats, whose "gunwales were not over one span above the water," until the naked remnant of three whites and a Barbary negro got to the State of Sonora, in Old Mexico, there is no natural object such as river, mountain, spring or plain mentioned in the account which we can positively identify. It is certain only that they voyaged west from Tampa Bay, necessarily hugging close to shore; that they were scattered and finally all shipwrecked by a storm; that they were in slavery among some coast tribes of Indians for about six years; that they escaped finally from them and started westward and in a course away from the sea; that they were passed from tribe to tribe as "medicine men," with a crowd of followers amounting at times to three or four thousand people; and that they finally got back to their countrymen near the present town of Culiacan, in Sonora, Old Mexico.

Now this uncertainty covers a space of time of more than six years, and of distance of more than two thousand miles. The country through which they made their way was certainly highly diversified, and they must have passed many remarkable and noticeable natural objects. Yet they made no record of any in such a way that we can identify them.

There are, however, some things which seem to me to offer explanations of this. For one thing, it is hardly to be expected that men whose daily life lay under a terrible uncertainty as to food, and to danger from the changing humors of savage masters, would be in condition to pay close attention to anything save the stern necessities fronting them. Thus keenness of perception would be blunted as to natural objects.

But it seems to me the explanation which deserves the most credit is that the report was made to their royal master, and, as every Spaniard knew, all his interest in new countries centered in two things, the finding of gold and the conversion of savages to the Catholic faith. Naturally these were the lines on which they made their report, and the description of natural objects was hardly germane to it. So the whole report was relative to the two points upon which the king was interested, except where there crops out the record of their terrible hardships; and, as these hardships were continuous, their hideous features appear almost involuntarily in every line.

As a result of this failure to closely describe the natural features of the countries through which they passed, the conjectures as to the line of travel from sea to sea are various. It has been maintained by some that they were shipwrecked east of the Mississippi, and that the survivors passed through Arkansas, the Indian Territory, New Mexico, and Arizona. Others have laid the entire route in Old Mexico. But the tendency at present seems to be to regard de Vaca's route as leaving the seashore in Texas, and passing west through Texas and Chihuahua. An article in the *Quarterly* for January, 1898, has taken the lead in figuring out his wanderings approximately upon the only basis open to us. It is the purpose of this paper to follow in the path thus laid out, as far as possible, and I trust that others will take up the work on the same line until there will be obtained at least a fair approximation to the route.

In de Vaca's accounts he relates that the tribes of Indians with whom he and the other Spaniards lived just prior to their escape to the West were in the habit of migrating at a certain season of the year to a part of the country where they lived on the fruit of the prickly pear cactus for a term of three months each year. On this, the article referred to reasons about as follows, substantially: The prickly pear is found over the Southern States and as far north as Illinois; but in order to satisfy the requirements of de Vaca's narrative a country must be found where the prickly pear ripens in great abundance, and endures so as to furnish food for Indians during three months of the year. This is not true of any country north of a line drawn, say, from Galveston to Eagle Pass, and is true of a large part of Texas lying south of that line. This reasoning gives us a northern limit to the location of de Vaca when his party started westward.

This conjecture seems to me to be reasonable. The only objection which I can imagine to be properly urged against the legitimate carrying out of this line of conjecture would be the contention that there may have been a change in the natural conditions of the country during the three hundred and fifty years which have elapsed since de Vaca passed through it. This objection as urged against the defining of the cactus country would also apply to some points to which I wish to call attention, and I shall consider its value in advance.

There are three ways in which I can imagine a considerable change in the natural productions of this country to have been brought about. There are probably others, but none, I think, so likely to work in this country as those which I will mention.

First to be considered is the probability of a change brought about by an increase or decrease in the rainfall or the humidity of the climate. As to this, I am not aware of anything of record to show that there has been any material change in Texas during the past three hundred and fifty years. Certainly there is no evidence to show that a climatic change has occurred great enough to drive out any plant or animal, or to materially alter the habitat of any such. Irrigation was necessary in parts of the State when first settled by the Spaniards, just as it is necessary at this day. True, in Southwest Texas farming without irrigation is now practiced in places where in the earliest settlements it was carried on by irriga-

tion solely, but it does not follow that the same kind of farming could not have been successfully carried on there from the beginning of the settlement. The encroachment of farming upon lands in the United States formerly considered arid, has not been due, according to the authorities generally, to an increased rainfall, but is attributed mainly to improved methods of tillage. Besides this, the generally received opinion among scientists at the present day seems to be that while the world is losing its humidity, it is doing so exceedingly gradually. The rate of decrease is so small as not to be perceptible in a term of three hundred and fifty years. Hence, unless some special cause of change of humidity has operated, such as a change in the limits of the Gulf of Mexico, or in the course of the trade winds, the territory suited to the growth of the cactus in large quantities is the same now as in de Vaca's day. So that the theory of scientists conforms to all the evidence that we can gather from the history of Texas during three hundred and fifty years.

But, secondly, a change of habitat for plants and animals may have been brought about by the agency of fire. De Vaca tells us that a favorite way of catching game, resorted to by the Indians, was to set fire to large scopes of country. This must necessarily have destroyed some vegetation, possibly some animal life, and most certainly a great deal of insect life, and if persisted in for years must have to some extent disturbed the existing equilibrium between the different forms of the vegetable and animal worlds. At the present day in West Texas the effect of fire is shown in changing the character of our grasses, and in some places certain varieties of grasses have been completely destroyed and replaced by others. In this case, however, it is not always easy to determine how far this change is due to fire, and how far it is due to the presence of stock grazing on the lands. According to my observation, cactus is not easily destroyed, and in my opinion in the recovery of vegetation after a fire the cactus would have a more dominant growth than before the fire.

If this be correct, the growth of the cactus was encouraged by the Indian practice of setting the country on fire, and as a consequence the cactus belt may be greater now and extending farther north than three hundred and fifty years ago. Or possibly the belt may remain now as it was then, the increase in cactus growth hav-

ing been coequal in all parts where the cactus grew and the Indians fired the country. But however that may be, it seems to me more probable that whatever effect fires might have in changing the character of the vegetation had been already long accomplished when de Vaca passed through Texas, as the Indian practice of firing the country for game must have been an exceedingly ancient one.

Thirdly, the coming of civilized man must have introduced some changes in the animal and vegetable forms in Texas. This would be more largely due to the introduction of the domestic animals, and the dissemination of foreign forms of vegetable life. In this connection I may here properly notice the increase in the growth of the mesquite tree. De Vaca speaks of this tree only in East Texas, and not far from the sea coast, yet it is now found probably from coast to coast. I have seen it make a very perceptible advance in the country west of the Pecos during the past fifteen years. Twenty years ago cattle in large numbers were first brought to this country and turned loose upon the range. Since then the mesquite has encroached on plains once destitute of it, and the result is commonly and reasonably attributed to the distribution of the seeds by cattle and horses, which are very partial to the mesquite bean.

But I am unable to see any effect of this kind, and most certainly none of this degree, upon the cactus. Practically it is only a few years since civilized man made his entrance into Texas, and there are living here now men whose memory goes back to a time when the cactus could have been very little influenced in its habitat by the coming of the civilized race. It is one of the most persistent, conservative, and hidebound of our native growths, giving way only with the greatest reluctance and holding grimly to its time-honored territory. The piñon tree, which will be brought into consideration later, has been up to the last thirty years out of direct contact with civilization, at least as far as it is known to exist in this State. Consequently it can not have been affected by it directly.

I have taken up these matters for discussion in order to show that it is not unreasonable to assume the situation and distribution of plants in this State to be very much the same now as in de Vaca's day, at least so far as the cactus and the piñon are concerned.

With this granted, I will take up de Vaca's march west from the cactus region.

Just before de Vaca escaped from the Indians and, with his three companions, commenced his march westward, he was at one of the summer stations where the Indians lived three months on the prickly pear fruit. Consequently he was, as figured out in the article above referred to, in the cactus region south of the line drawn from Galveston to Eagle Pass, and probably not far from the coast. Now of this country he says: "Cattle come as far as here. Three times I have seen them and eaten of their flesh." Then follows a clear description of the bison and its habits.

From the fact that he had seen the bison and eaten of it only three times during the six or seven years that he had remained in these parts we are led to conclude that the country from which he started on his march westward was at the extreme southern or southeastern limit of the range of the "buffalo," as it is commonly called. De Vaca says, "Cattle come as far as here," as if they did not go much, if any, farther. So, if we can determine what that limit was in 1535 anywhere in the cactus region, we can determine approximately de Vaca's position before commencing his western journey.

The nearest record in point of time and locality of which I have any knowledge is that left by La Salle's party when they attempted to settle at Fort St. Louis one hundred and fifty years afterwards. According to Parkman, Fort St. Louis was situated on Lavaca River, near Matagorda Bay. And the French were at this place in the summer of 1685, when buffalo were so abundant as to be what the Abbe Joutel called their "daily bread." So at that time the southeastern limit of the buffalo range must have been at least as far south as the Lavaca River. Now what difference is probable in this limit to the buffalo range between de Vaca's time and La Salle's time, one hundred and fifty years apart?

Those limits must have been originally set by natural conditions such as abundance or scarcity of grass and water, winter temperature, etc., and, while subject to yearly fluctuations caused by droughts, extensive fires, or severe winters, must have remained practically the same for a long period of time, unless the numbers of the buffalo had greatly increased or decreased. An increase in the numbers of the buffalo would have tended to drive them fur-

ther south in their winter journey in order to procure food. But as they did not get as far south as the Rio Grande, according to de Vaca's experience after he crossed the Pecos River, and as in the time of the later Spanish explorers they do not seem to have crossed the Rio Grande, it is highly probable that the southern limit of their annual migrations was the same during the Sixteenth and Seventeenth centuries. So I set down the southern and southeastern limits of the buffalo range in de Vaca's time as being the same as in La Salle's time, and as being most certainly south of the Lavaca River.

De Vaca then must have set out from a point south of the Lavaca River. I conclude also that this point must have been north of the Rio Grande. If he started from a point south of that river, it is difficult to believe that he could have crossed any "great river coming from the North," and such as he is afterward described as crossing, unless such crossing refers to the Rio Grande itself, which comes from the northwest and in parts even from the southwest until a point as far west as El Paso is reached.

With this granted, the next consideration is the line of travel. After making their escape from the Indians here the Spaniards marched a short distance to another tribe and concluded to winter there. They remained with them eight months until the mesquite bean ripened, when they took up their travels westward. The general course aimed at was toward the setting sun. This course could not be followed closely all day. Then too the Spaniards planned to travel from village to village, depending upon these villages for guides and food. This would certainly have made their course more or less erratic. I make their direction for several hundred miles to have been a little north of west, in spite of their determination to lay a course toward the setting sun. Had their course lain to the west or south of west, it would have carried them across the Rio Grande at a point where the river has a considerable volume, and I think they would have made an unmistakable record of the crossing. Two of their number were unable to swim and would have found trouble in crossing. Afterward when they came to a river—probably the same river much higher up, according to the general belief, and nothing like so large as in its lower stretches—which they forded, the water coming up to their armpits, that river de Vaca calls a "very great river."



After many days, some spent on the march, some at the villages, they arrived at "many houses on the banks of a beautiful river." The people ate prickly pears and the seeds of pine trees. "In that country were small pine trees, the cones like little eggs; but the seed is better than that of Castilla, as its husk is very thin, and while green is beat and made into balls to be eaten," etc. This seems clearly to be a description of what is known in West Texas as the piñon tree. It is often found on high, rocky points west of the Pecos River, but is found east of that river at only two points so far as I have been able to ascertain; one on the brakes or heads of small cañons near the old Pontoon Bridge crossing, the other in Edwards county on some of the small tributaries of Dry Devil's River. I am disposed to think the Spaniards must have seen the piñon in the latter place. Certainly the cactus is not found in any quantity in the former locality, and there is no "beautiful" river near, unless the term might be applied to Live Oak Creek.

I have heard it objected to this, that there is no stream in Edwards county worthy of being called a "beautiful river." In answer I will call attention to the fact that the use of the term *rio* (here translated *river*) by the Spanish in West Texas, Chihuahua, and New Mexico is not the same as the use to which the word *river* is put in English. *Rio* in Spanish has been applied to many streams of running water in this country, such as Rio Hondo, Rio Tulerosa, Rio Toyah, and Rio Comanche, which would be dignified to be called creeks. Of such streams I am told that Edwards county has several, and to the Spaniards they were "rios." This county, I am also told, has prickly pear cactus in abundance, although not to the extent to which it is to be found further south and east.

After leaving this place they traveled through a country abounding in people and game. "Those having bows were not with us: they dispersed about the ridge in pursuit of deer, and at dark came bringing five or six for each of us, besides quail and other game." West of Edwards county lies a great limestone plateau, extending to a point eighty or ninety miles west of the Pecos River. It is cut up by cañons, the main cañons running north and south, and the lateral cañons coming from a little north of west and a little north of east. These lateral cañons would afford the natural route for these travelers, and to one accustomed to that country it would

be the reasonable expectation that deer hunters would hunt along the ridges at the sides of the cañons, where deer would be found lying in the shade of the cedar trees in the heat of the day.

Then again this plateau has on its surface a vast number of old rock heaps, commonly said in this country to have been used by Indians for roasting the sotol and maguey plant, as well as the fruits of the chase. During certain seasons of the year this country must have had a considerable Indian population, living on roasted sotol and venison. These seasons could only have come after heavy rains had stored up water in little earth or rock tanks. The heavy rains usually fall in that country from July to November, and it seems to have been in this time of the year that de Vaca and his comrades passed through.

Shortly afterwards they passed over "a great river coming from the north." I take this to have been the Pecos about forty miles above its junction with the Rio Grande. At the present day the Pecos carries very little water in its lower stretches during a great part of the year; and, while a Spaniard would unhesitatingly call it a river, he might pause before calling it a "great river." The scarcity of water at this day is due to a number of large irrigating canals built during the last ten years, which have almost drained the river. But when I first saw the Pecos it was a very different stream. In 1880 it was of very regular dimensions for three hundred miles above its mouth. It was generally from sixty-five to one hundred feet in width, from seven to ten feet deep, with a rapid current of a red cast, and fordable in very few places. This was probably what de Vaca saw, and to the Spaniards it was a "great river." Certainly no other stream in Chihuahua, West Texas or New Mexico can so correctly be called a "great river" unless it be the Rio Grande, and I shall now show that this river was probably passed soon afterwards.

After crossing this river they traveled eighty leagues before coming to a "very large river," which they forded, the water coming up to their breasts. This I take to have been the Rio Grande below Presidio del Norte. The distance assigned between the two rivers—eighty leagues—is too great for a direct line on the route which I have assigned to de Vaca. But I think their route must have been subject to very considerable deflections in order to obtain water, which is very scarce in that country. Besides, I am inclined to think that de Vaca has overstated distances more than

once. He had had for eight years no means of verifying his estimates of distances, and in this particular instance he had traveled over a desert country, where the Spaniards had suffered greatly both for food and water, and it would have been very natural for de Vaca to have had an exaggerated idea of this distance.

After crossing the river they seem to have left it for a short distance, coming to it again at a settlement where there were "fixed habitations." Some twenty to forty miles below Presidio del Norte it would have been impossible to travel along the banks of that river, which would account for the deflection. Somewhere in here they must have crossed the river again, as we find them shortly afterwards going up on the north bank. To reconcile my route with the strict letter of the narration, they must have crossed the Rio Grande above the mouth of the Concho river, and afterwards have come to and traveled along the north bank of the Concho river in Chihuahua.

I have preferred to believe that they crossed the Rio Grande again to the north bank without there being any record of it for the following reasons: A short distance above the "fixed habitations" they came to an Indian town, where beans, pumpkins, and corn were cultivated. I am inclined to place this near the present town of Presidio. I am led to this principally on account of the mention made by de Vaca of their manner of planting corn. Irrigation is necessary at the present day—and as far back as we have any record—to farming in all of West Texas and New Mexico. But in the neighborhood of Presidio, corn has been planted from time immemorial in "temporales," that is, in sandy stretches near the river. It is not irrigated, but depends upon rain and sub-irrigation from the river to bring it to fruitage. This is the only place in all this country where I can learn of corn being planted in this way. Now the people at this point as described by de Vaca begged the Spaniards to tell the sky to rain that they might plant their corn, and told them that the "rain had failed for two years and that the moles had eaten up their seed, etc." Evidently they must have planted in "temporales," and not have used irrigation.

De Vaca says that he called these people the "Cow" nation because "most of the cattle are slaughtered in their neighborhood, and along up the river for over fifty leagues they destroy great numbers." Now apparently he means this to apply to the people who planted the corn. If so the river could hardly have been the

Rio Grande, and still less could it have been the Concho. For according to Bandelier and others who have examined the records of the early Spanish explorers, many of whom passed up the Concho and Rio Grande, the buffalo did not frequent the Rio Grande valley nor that of the Concho, while they did roam on the Pecos river in great numbers.

I think this statement must have been intended to refer to all the people he met from the Pecos to the Rio Grande. The Indians from the Rio Grande probably went off every fall and winter to hunt buffalo on the Pecos River, just as I find in 1880 Mexicans from the Rio Grande valley hunting buffaloes for the hides and dried meat away out on the Staked Plains in Texas. De Vaca says that they were away hunting the buffalo at the time he passed through their villages. So I am led to think that the river on which they were hunting was the Pecos, while the villages themselves were on the Rio Grande. De Vaca may easily have misunderstood the statements of the women and old men of the villages on this point.

I must here part company with de Vaca. My knowledge of the country through which he must have traveled extends no further. I trust that others will take the discussion up, and that we may have the benefits of the knowledge and suggestions of many on this interesting chapter of early history.